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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,560	08/30/2001	Ronald P. Doyle	RSW920010127US1	2546

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Jeanine S. Ray-Yarletts
IBM Corporation
T81/503
PO Box 12195
Research Triangle Park, NC 27709

EXAMINER
ZHONG, CHAD

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/943,560	DOYLE ET AL.
	Examiner	Art Unit	
	Chad Zhong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 June 2005</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-35</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-35</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL ACTION

1.   This action is responsive to communications: Amendment, filed on 06/20/2005. This action has

been made final.

Claims 1-35 are presented for examination. In amendment, filed on 06/20/2005:

Claims 1, 32, 34 are amended.

Claims 2-31, 33, 35 are previously presented

Applicant's arguments with respect to claim 1-35 have been considered but are found not

persuasive in view of the new ground(s) of rejection as necessitated by Applicant's amendments.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United
> States before the invention thereof by the applicant for patent, or on an international application by another who has
> fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by
> the applicant for patent.

3.   Claims 1-3, 11, 16-17, 20-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor

et al. (hereinafter Taylor), US 2002-0007417.

4.   As per claim 1, Taylor teaches a method of efficiently serving content in a distributed

computing environment that comprises a network-attached storage system having a plurality of disk

drives ([0023], [0025]), comprising steps of:

        receiving usage metrics for a particular stored object ([0025], usage metrics are access patterns); and

        evaluating the received usage metrics to determine whether the particular stored object is stored in an

appropriate one of the plurality of disk drives, and moving the object to another of the plurality of disk

drives if not ([0025], migration based upon user access patterns).

5.   As per claim 2, Taylor teaches the method according to claim 1, wherein the usage metrics are

received from a server ([0026]; [0023], wherein host controller located within storage server provide

access patterns based on user requests).

6.   As per claim 3, Taylor teaches the method according to claim 1, wherein the received usage

metrics are gathered by a system responsible for storing the particular stored object ([0023], [0025]).

7.   As per claim 11, Taylor teaches the method according to claim 1, wherein the usage metrics are

received in response to a query for remotely-stored usage metric information ([0023], query are the user

requests).

8.   As per claim 16, Taylor teaches the method according to claim 1, wherein the usage metrics are

expected popularity values ([0026], expected popularity values are based on user access patterns).

9.   As per claim 17, Taylor teaches the method according to claim 16, wherein the expected

popularity values are provided by a user ([0026], wherein popularity values are provide by the amount of

user access).

10.   As per claim 20, Taylor teaches the method according to claim 1, further comprising steps of:

        gathering usage metrics by a server ([0033]); and

        sending the gathered usage metrics from the server ([0033]); and

        wherein the received usage metrics are those sent from the server ([0033-0034], this is done to

balance the load on the plurality of modules).

11.   As per claim 21, Taylor teaches the method according to claim 20, wherein sending the gathered

usage metrics from the server operates in response to a triggering event ([0033-0034], events being status changes of user access patterns).

12.   As per claim 22, Taylor teaches the method according to claim 21, wherein the triggering event comprises expiration of a timer ([0031]).

13.   As per claim 23, Taylor teaches the method according to claim 21, wherein the triggering event comprises exceeding a threshold ([0028], the attempt to replicate will reduce the chances of bottleneck, achieving load balancing on the server side based on popularity values).

14.   As per claim 24, Taylor teaches the method of claim 21, wherein the triggering event comprises receiving a query for the usage metrics ([0025-0026]).

15.   As per claim 25, Taylor teaches the method according to claim 20, wherein gathering usage memories by a server further comprises gathering the usage metrics by analyzing an access log ([0035-0037]).

16.   As per claim 26, Taylor teaches the method according to claim 20, wherein gathering usage memories by a server further comprises gathering the usage metrics by tracking access requests at the server ([0035-0037]).

17   As per claim 27, Taylor teaches the method according to claim 1, wherein the usage metrics are expressed as a mnemonic ([0026]).

18.   As per claim 28, Taylor teaches the method according to claim 1, wherein the usage metrics are expressed as a scaled number ([0026]).

19.   As per claim 29, Taylor teaches the method according to claim 1, wherein the usage metrics are

expressed as a percentage of access requests ([0026]; [0035-0037]).

20.   As per claim 30, Taylor teaches the method according to claim 1, wherein the usage metrics are expressed as an actual number of access requests ([0031]; [0035-0037]).

21.   As per claim 31, Taylor teaches the method according to claim 1, wherein the usage metrics are expressed as a ranking ([0036]).

22.   As per claim 32, Taylor teaches a system for efficiently serving content in a distributed computing environment using a network attached storage (NAS) system having a plurality of disk drives ([0023], [0025]), comprising:

    means for receiving, by a component of the NAS system, usage metrics for a particular stored object ([0025]); and

    means for evaluating the received usage metrics to determine whether the particular stored object is stored in an appropriate one of the plurality of disk drives, and for moving the objet to another of the plurality of disk drives if not ([0025]).

23.   As per claim 33, Claim 33 is rejected for the same reasons as rejection to claim 20 above.

24.   As per claim 34, Claim 34 is rejected for the same reasons as rejection to claim 32 above.

25.   As per claim 35, Claim 35 is rejected for the same reasons as rejection to claim 20 above.

Claim Rejections - 35 USC § 103

26.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

27.   Claim 4-6, 8-9, 15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (hereinafter Taylor), US 2002-0007417, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001

28.   As per claim 4, Taylor does not explicitly teach the method according to claim 1, wherein the usage metrics are encoded in a Hypertext Transfer Protocol message header.

In a similar system, Koskela teaches optimization of web caches through determining values for each cached web documents, specifically, Koskela teaches wherein the usage metrics are encoded in a Hypertext Transfer Protocol message header (see for example, Abstract, wherein the metrics are estimated from the HTTP response and from HTML structure of the document), in order to measure usage metrics in an HTTP/HTML environment and improve response time (pg 1, lines 1-10).

It would have been obvious to the person ordinary skilled in the art at the time of the invention to combine teaching of Taylor and Koskela because to encode usage metrics in HTTP message header as taught by Koskela would enhance the capability of Taylor's system by measuring usage metrics in an HTTP/HTML environment and improve response time.

29.   As per claim 5, Taylor does not explicitly teach the method according to claim 1, wherein the usage metrics are encoded using syntax of a markup language.

In a similar system, Koskela teaches optimization of web caches through determining values for each cached web documents, specifically, Koskela teaches the method according to claim 1, wherein the usage metrics are encoded using syntax of a markup language (pg 3, lines 5-10), in order to measure usage metrics in an HTTP/HTML environment (pg 3, lines 5-10; pg 1, lines 1-10)

It would have been obvious to the person ordinary skilled in the art at the time of the invention to combine teaching of Taylor and Koskela because to encode using syntax of a markup language as taught by Koskela would enhance the capability of Taylor's system by measuring usage metrics in an HTTP/HTML environment and improve response time.

30.   As per claim 6, Taylor does not explicitly teach the method according to claim 5, wherein the markup language is HTML ("Hypertext Markup Language").

In a similar system, Koskela teaches the method according to claim 5, wherein the markup language is HTML ("Hypertext Markup Language") (pg 3, lines 5-10), in order to measure usage metrics in an HTTP/HTML environment and to improve response time (pg 3, lines 5-10; pg 1, lines 1-10)

It would have been obvious to the person ordinary skilled in the art at the time of the invention to combine teaching of Taylor and Koskela because markup language is HTML as taught by Koskela would would enhance the capability of Taylor's system by measuring usage metrics in an HTTP/HTML environment and improve response time.

31.   As per claim 8, Taylor and Koskela do not explicitly teach the method according to claim 6, wherein the syntax comprises a "META" tag using a "NAME" attribute syntax. However, it would have been obvious to include the NAME meta tag within Koskela for the purpose of identification of remote server/clients.

32.   As per claim 9, Taylor does not explicitly teach the method according to claim 6, wherein the syntax comprises a specially-denoted comment

In a similar system, Koskela teaches the above section (see for example, table 1, wherein the HTML tags have values in which Koskela's system is keeping track), in order to monitor system popularity in HTTP/HTML environment. It would have been obvious to the person ordinary skilled in the art to

markup language is HTML in order to measure usage metrics in an HTTP/HTML environment

33.   As per claim 15, Taylor and Koskela do not explicitly teaches the method according to claim 1, wherein the usage metrics are encoded in a Wireless Session Protocol message header. However, the concept and advantages of providing for Wireless Session Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include Wireless Session Protocol with Taylor and Koskela because it would provide for broader service coverage into the realm of wireless networking.

34.   As per claim 18, Taylor teach the method according to claim 16, wherein the expected popularity values are predicted by a content management system ([0026]).

35.   As per claim 19, Taylor does not explicitly teach the method according to claim 1, wherein the usage metrics are received as meta-data on a file access message.

In a similar system, Koskela teaches the method according to claim 1, wherein the usage metrics are received as meta-data on a file access message (pg 3, lines 5-10, wherein the usage metrics are determined based upon the file access) in order to monitor document popularity in HTTP/HTML environment. It would have been obvious to the person ordinary skilled in the art to receive meta-data on a file access message in order to measure usage metrics in an HTTP/HTML environment

36.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (hereinafter Taylor), US 2002-0007417, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of "How the web works: http and CGI explained", Garshol, 1999.

37.   As per claim 7, Taylor and Koskela do not explicitly teaches the method according to claim 6, wherein the syntax comprises a "META" tag using an "HTTP-EQUIV" attribute syntax.

38.   Garshol teaches wherein the syntax comprises a "META" tag using an "HTTP-EQUIV" attribute

syntax (see for example, pg 14, lines 25-30 for advantages of remote file settings).

39.   It would have been obvious to one of ordinary skill in this art at the time of invention was made

to combine the teaching of Taylor, Koskela and Garshol because they all deal with web based information

exchange. Furthermore, the teaching of Garshol to allow wherein the syntax comprises a

"META" tag using an "HTTP-EQUIV" attribute syntax would improve the identification and setup

procedures for Taylor and Koskela's system by providing the appropriate header fields for ease of setup

of a remote node.

40.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (hereinafter

Taylor), US 2002-0007417, in view of "Using Document Features to Optimize Web Cache", Koskela et

al. (hereinafter Koskela), 2001, in view of "Form-Based Proxy Caching for Database-Backed Web Sites",

Luo et al. (hereinafter Luo), 2001

41.   As per claim 10, Taylor and Koskela do not explicitly teach the method according to claim 5,

wherein the markup language is XML ("Extensible Markup Language").

42.   Luo teaches wherein the markup language is XML (see for example, pg 3, Col. 1, lines 19-24 for

the advantages of compatibility in representation).

43.   It would have been obvious to one of ordinary skill in this art at the time of invention was made

to combine the teaching of Taylor, Koskela and Luo because they all deal with information transfer and

proxy cache. Furthermore, the teaching of Luo to allow the markup language to be XML would improve

the compatibility for Taylor and Koskela's system by providing XML formats which in

essence eliminates format translations.

44.   Claim 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al.

(hereinafter Taylor), US 2002-0007417, in view of "Using Document Features to Optimize Web Cache",

Koskela et al. (hereinafter Koskela), 2001, in view of "Web-Based Distributed Authoring and Versioning

(WebDAV)", Itkonen, 1999.

45.   As per claim 12, Taylor and Koskela do not explicitly teach the method according to claim 11,

wherein the query uses a WebDAV request.

46.   Itkonen teaches wherein the query uses a WebDAV request (see for example, pg 3, lines 25-30).

47.   It would have been obvious to one of ordinary skill in this art at the time of invention was made

to combine the teaching of Taylor, Koskela and Itkonen because they all deal with web based information

transfer. Furthermore, the teaching of Itkonen to allow wherein the query uses a WebDAV request

would improve the interoperability for Taylor and Koskela's system by providing XML and HTTP

extensions to make web authoring widely available to support a broad group of users (pg 3, lines 25-30).

48.   As per claim 13, Koskela teaches the method according to claim 12, wherein a response to the

WebDAV request specifies usage metric gathered by at least one server (pg 2, lines 35-38).

49.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al.

(hereinafter Taylor), US 2002-0007417, in view of "Using Document Features to Optimize Web Cache",

Koskela et al. (hereinafter Koskela), 2001, in view of "Cookies and Protecting Your Privacy",

CompuVision, 2001

50.   As per claim 14, Taylor and Koskela do not explicitly teach the method according to claim 4,

wherein the usage metrics are encoded using one or more cookies.

51.   CompuVision teaches wherein the usage metrics are encoded using one or more cookies (see for

example, pg 1, lines 2-20 for the advantage of overcoming statelessness and creating efficient dynamic

webpage interactions).

52.   It would have been obvious to one of ordinary skill in this art at the time of invention was made

to combine the teaching of Taylor, Koskela and CompuVision because they all deal web based

information transfer. Furthermore, the teaching of CompuVision to allow wherein the usage metrics are

encoded using one or more cookies would improve the efficiency for Taylor and Koskela's system by

providing maintaining an illusion of a session so as to improve the access speed next time the user

accesses the same page (pg 1, lines 15-20).

Conclusion

53.   Applicant's remarks filed 06/20/2005 have been considered but are moot in view at the new

grounds at rejection necessitated by Applicant's amendment.

54.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and publications are cited to further show the state of the art with respect to method

of providing router with subnetwork address pool in a cellular telecommunications network.

i.	US 6711585	Copperman et al.
ii.	US 6094649	Bowen et al.
iii.	US 6351776	O'Brien et al.
iv.	US 6675205	Meadway et al.

v.   "USING META TAG-EMBEDDED INDEXING FOR FIELDED SEARCHING OF
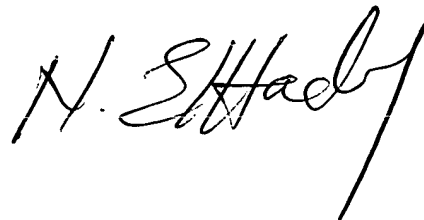THE INTERNET" – Coombs, Philip INET Conference Aug 30, 1999.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ
September 12, 2005